

GOOD ROADS DEPARTMENT

CONDUCTED BY
**Michigan State
Good Roads Association**
P. T. Colgrove, President. Hastings, Michigan.

Hastings—The Michigan State Good Roads Association through its president, have engaged the services of Mr. Z. D. Dunlap, Assistant Director General of the National Highway Association, to conduct a state wide campaign in the interest of the association.



Mr. Dunlap comes to Michigan with a national reputation as a Good Roads Booster and bears the O. K. of the Ohio State Federation. It is our earnest desire that Mr. Dunlap may be received cordially everywhere, and that when he leaves Michigan he will take with him favorable impressions of our state as compared with states which mark his activity.

The Dixie highway is coming into Michigan. In our next week's article we shall have more to say about this great thoroughfare.

In order that we may be made better acquainted with Mr. Dunlap and appreciate him more a little later, I desire to give a few of his ROAD-ISM.

Organization we must have in every county and state if we expect congress to take any real interest in the road question. Every other interest is powerfully represented at Washington.

European wars don't worry our roads. Get busy and do your part in lifting Michigan out of the mud.

Good roads and a merchant marine will be worth more to this nation than an ocean filled with battleships.

We lead the world in everything else, why not in Good Roads?

Don't put a gauge on your enthusiasm for good roads. There are no meter rates.

Road improvement is for your own personal benefit and profit.

If you are a progressive citizen, you are interested in Good Roads because you cannot progress so long as your State and Nation remain in the mud.

Do you realize that bad roads are costing you enough each year to make those roads permanently good?

Only through moral suasion and ap-

peal to men's reason can the Good Roads Movement succeed.

Ninety per cent of travel is between towns and between cities.

Mr. Manufacturer, Merchant and Professional Man, you should take a hand in helping to create a strong and powerful sentiment for good roads in Michigan.

Congress must set a definite plan for a national solution of the road problem under Federal auspices, and Congress cannot postpone action much longer.

The advent of the automobile has done much to improve road conditions and not only made road enthusiasts out of knockers, but has acquainted the city folk with the conditions and the surroundings of rural folk.

Don't worry relative to what becomes of the \$5. The Michigan Good Roads Association does not expect to spend any part of it on you. There are many sections of the state that need the education which can only be given by a state organization. Put your shoulders to the wheel and help. Don't lag behind waiting for the other fellow to start; the other fellow might die.

Your work in the road movement must be in earnest, zealous and unselfish.

This is an age of progress in the United States in every sense, and the progressive movement should include within its scope the improvement of every important road in the country.

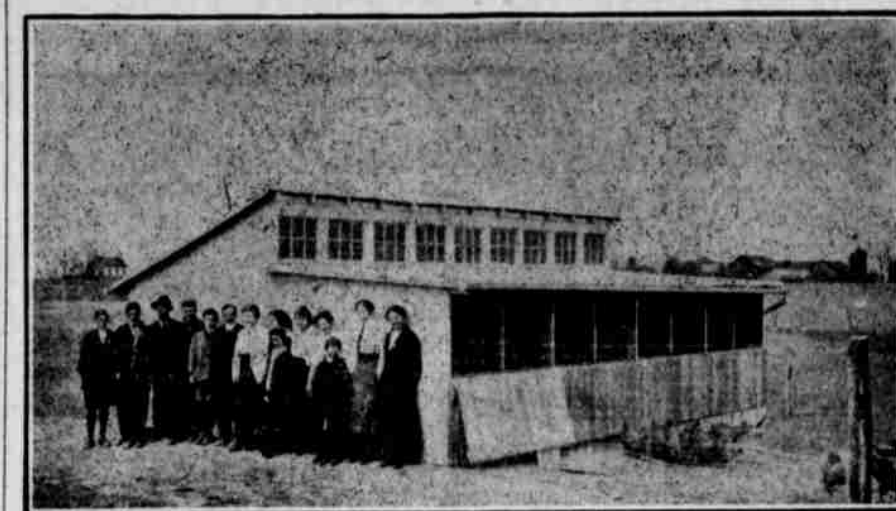
The improvement of raw highways is always followed by the improvement of all things which mean better road conditions: We must have cheaper transportation over our roads. The movement of either 1912 or 1913 crops cost the agricultural interests of the United States \$137,000,000 more than it ought to.

The men taking an interest in behalf of the good roads movement are citizens worth while to a community.

Don't get impatient because the endeavors of the Michigan Good Roads Association do not bring immediate results. Remember, Rome was not built in a day. Don't say "Don't" to any proposition respecting better roads. A "don't" never grew into an "I will" and "I can" "er."

The biggest thing conceived is the easiest thing to do, so do your part in making Michigan the home of good highways.

market when not sold to club members or individuals for setting. To prevent inbreeding, however, the roosters of a different strain may be substituted each spring. One of the U. S. Department of Agriculture's specialists will this fall visit the school and farms in the vicinity of Middletown, and help select the best poultry for breeding purposes. These breeders will be retained on the farms



Middletown, Va., Barred Plymouth Rock Club and the Poultry House Used.

on which they were grown and thus the farmer or school child who has once obtained a setting of eggs will not need again to apply at the school for more.

The school club members are very enthusiastic about their work and at the fall and winter shows carry off most of the prizes. At the first egg show held last year, some 50 dozen

eggs were exhibited and the student competition was keen. Another show is to be held this year in May.

A schoolhouse also may be made the center for collecting eggs fresh from any part of the country within a fair distance, as the school children come daily to the school, and can easily bring the fresh eggs with them. These eggs can be marketed in the city and bring special prices, because

they can be guaranteed as strictly fresh.

The poultry club in addition affords a chance to exchange breeding fowls and the introduction of new blood into the flocks. It also provides a valuable outlet for the energies of the young folks who are interested in things pertaining to the farm.

HOME CARE OF MILK

**Milk Sour Very Slowly at Low Temperatures;
Clean Receptacles Aid in Keeping Milk
Sweet; Whipping Cream.**

With the advent of warm weather the care of milk in the home becomes more complex than during the late autumn and winter. Heat to the extent accumulated by allowing milk to stand on a warm porch or in the sun is enough to start the bacteria in milk to multiplying at a rapid rate and thus make it unfit for use as sweet milk, according to the dairy specialists of the United States Department of Agriculture. The hot days also bring the flies, the great germ carriers, and the clouds of dust laden with bacteria, which, when coming to rest on milk receptacles, may easily contaminate the milk.

Milk is regarded as a natural culture medium for bacteria, and the rapidity with which the various forms will multiply, under the proper temperatures, is astonishing. It has been shown that if a cubic centimeter (about 1/2 teaspoonful) of milk containing 10 bacteria is kept at 68 degrees temperature for 24 hours, the bacteria will have multiplied into about 61,000. In the same milk, if held at 50 degrees, the growth of bacteria would be very small, possibly as low as 40 in 24 hours. Milk which contains a large number of bacteria is either not fresh or has come from a diseased cow or has otherwise been contaminated.

Flies are possibly the most dangerous bacteria carriers which are likely to come in contact with milk. These scavengers may convey the germs of typhoid fever or other contagious diseases from the sick room or excreta to the milk. Typhoid epidemics have been caused by flies spreading the germs. Milk should be guarded from flies as rigorously as you would avoid exposure to disease.

Cows are now out on pasture, and milk is more easily produced under sanitary conditions than during the winter months when the cows are stabled continuously. Milk may be handled by the farmer in the most correct and sanitary methods known, and yet if it is not cooled immediately after milking and kept cool until consumed, it very soon begins to change and grow sour. In fact, the bacterial content increases rapidly as long as the milk remains above 50 degrees Fahrenheit. The bacteria are dormant or increase slowly at a lower temperature. For this reason, every precaution for keeping milk cold from the time it is produced until it reaches the consumer is essential, and especially so during the warm weather.

Milk may absorb impurities whenever it is exposed to the air, or placed in unclean vessels. The amount or degree of contamination depends on the cleanliness of the air and of the utensil. Even the air of a so-called clean room contains some impurities. If the producer and dealer have done their duty, there is left at the consumer's door a bottle of clean, cold, unadulterated milk. But the consumer also has responsibilities in handling milk so that it continues to be fit for consumption, especially as food for babies. The milk in the home may be placed in unclean vessels or exposed unnecessarily to the air, or not kept cool until the time of using. Thus things may happen to the milk

affecting its quality, many of which are caused through carelessness.

Receiving Milk at the Home.

The expression "a bottle of clean, cold, unadulterated milk" describes the kind of milk which should be delivered to the home. The method of dipping milk from large cans and pouring it into the customer's receptacle in the street, with all the incident exposure to the air, not always the cleanest, is a bad practice. Drawing milk from the faucet of a retailer's can is almost as bad as dipping milk, although the milk is not exposed to the air as long as by the dipping process. Besides the insanitary part of this method, some consumers, unless the milk is kept well agitated, are likely to receive less than their proportion of cream. The custom of setting out at night an uncovered vessel which collects thousands of bacteria from the street dust before the milk is put into it, is obviously very insanitary, and yet it is practiced to a large extent. If milk is to be received in a bowl or pail by the consumer, it is worth while to have it delivered personally to some member of the family, or if the receptacle is to be placed in waiting for the milk deliverer, it should be covered with a plate, or better still, a glass preserving jar may be used, in which nothing but milk is put. The jars with the glass tops are preferable; no rubber bands should be used.

Direct sunlight on the bottle of milk warms it rapidly, and increases the bacterial content. Milk which is delivered very early in the morning, say at 4 a. m., and remains out-of-doors until 9 or 10 o'clock, is very likely to become warm and less fit for human consumption than if it were taken in the house and placed in the refrigerator early in the morning.

Milk should not be transferred from the original bottle into another receptacle until just before consumption. The bottle should be kept covered with a paper cap, or an inverted tumbler as long as the milk is in it. Milk deteriorates by exposure to the air in the pantry, kitchen or nursery. Housewives are familiar with the ability milk has to absorb smells from strong foods, like fish, cabbage, or onions. It is obvious, therefore, that such foods should be kept out of the refrigerator which contains milk.

If the milk is received in a bowl, pail or other receptacle, instead of a bottle, the same rules apply to the keeping of the milk as those mentioned above for bottled milk. Milk from the grocery store or bakery which is kept in a can, open most of the time, and possibly without refrigeration, is to be strictly avoided.

Care of the Refrigerator.

The refrigerator, unless kept scrupulously clean, often is in itself a source of production of bad flavor in milk. The refrigerator should be inspected at short intervals, at which times the outlet for the melted ice should be freed, the ice-rack cleaned, and the place where the food is kept scalded with sal-soda solution. Even though the refrigerator is cold, a few drops of spilled milk, or a small particle of food neglected, will soon contaminate it.

Care of Milk Bottles and Utensils.
Milk bottles are made for milk and not to hold sundry other foods. As soon as the milk bottle is empty, it should be rinsed with lukewarm water until it is clean, and then set bottom-side-up to drain. Bottles should never be returned in a dirty or filthy condition. All utensils with which milk comes in contact should be rinsed, washed and scalded every time they are used. When cleaning these utensils, do not wash them in dish water or wipe with ordinary dish towels. First rinse them and then boil in clear water and set away unwiped. If the receptacles are hot, they will soon become dry without wiping.

When a baby is bottle-fed, every time the feeding bottle and nipple are used they should be rinsed in lukewarm water, washed in hot water to which a small amount of washing soda has been added, and then scalded. Never use a rubber tube between the bottle and nipple.

If a case of typhoid fever, scarlet

fever or diphtheria breaks out in the family, do not return any bottles to the milkman except with the knowledge of the attending physician, and under the conditions prescribed by him.

Whipping Cream Should be Cold.

The above suggestions on the care of milk are equally applicable to cream. Often the housewife finds that the cream she has will not whip. The department dairy specialists point out that to obtain satisfactory results in whipping cream it should be cold and of the right thickness, containing about 30 per cent or more of butterfat. Ordinary cream, designated as coffee cream by the trade, is altogether too thin to give good results. The whipping cream, as delivered by the milkman, contains 30 to 40 per cent of butterfat. Thoroughly chill the cream before whipping by placing it in a covered bowl on the ice. The whipping process is also aided and hastened by standing the bowl in a pan of ice water.

TWILIGHT STORIES FOR LITTLE FOLKS

By Paul Leake

Ben Breaks the Whips.

Sitting on a stump in a pasture field just outside the village, Ben basked in the sunshine of early spring. Drawing his knees up under his chin he listened to the calls of the robins. He had heard his mother talking of the great war going on across the seas, and with her felt sorry for the poor men who had to give their lives in battle, and for the poor crippled soldiers being taken to the rear, jolted and jarred in the rough carts. He also heard how a boy had proved a hero.

Ben wished he was that boy and could carry a sword, or better yet, ride a big horse into the smoke and roar of battle. He was startled out of his day dream by a great shadow which flitted across the meadow. Looking up he saw what he thought was a great big bird slowly circling in the sky, coming gradually lower and lower until it was so close Ben could see it was a flying machine. Watching it he was surprised to see it settle slowly and gently to the meadow. A man got out and came toward him.

"Good morning, Ben," said the stranger with a pleasant smile. "I heard your wish up there in the clouds. If you will come with me I will show you some of the things you would like to see."

Ben looked at the stranger, then at the medals he wore. Upon every one of them he saw the word "peace."

"Yes, Ben," said the stranger, answering the boy's unspoken thought, "these are peace medals. You will find when you grow up, it takes more courage to deserve one of these than it does to go out and kill your fellow men. You wished you could ride a big horse into the smoke and roar of battle. If you will come with me I think you will change your mind. Mama knows you are going, so she will not be worried."

Ben followed the stranger into the flying machine which rose like a bird

in the air. Over fields, rivers and lakes they flew; over mountains and plains, down by the great sea and along the coast to a southern city. Here the air-man paused above a great lot filled with horses and mules which were being loaded into a steamship. The poor frightened things were put in slings and lifted on the steamer by big machines. Leaving there, the airman went straight across the ocean, to far distant shores; above vine clad hills and finally above a great black forest. The rumble and roar of big guns could be heard and cries of men hit with pieces of bursting shells. The airman let his machine down in a field and with Ben got out. Right before them were team after team hauling big guns, stuck in the mud. Drivers were using great big whips on the poor struggling animals which were trying so hard to pull. Right alongside of Ben was a fine looking man who had a great whip with which he was beating the horses.

"Stop that!" cried Ben and grasping the whip he broke it in several pieces. Then he went to the others and did the same. Men fell back before his just anger. The horses rubbed their noses against Ben's coat in gratitude. He unhitched them all and they ran away into the forest just as a lot of men on horses with drawn swords came dashing at the boy, who with the stranger, ran to the flying machine, and rose with it into the air. Bang, bang, bang, went the machine guns and bullets whistled all around the flying machine.

"Ben, Ben! what are you yelling about?"

"I don't care," said Ben as he opened his eyes and looked into his mother's eyes. "I broke the whips any how. Mama when I grow big I do not want to ride a horse into the roar and smoke of battle."

His mother then knew he had been dreaming again.

OUR POULTRY DEPARTMENT

ERNEST B. BLETT

GRAND RAPIDS, MICH.

COMMUNITY POULTRY

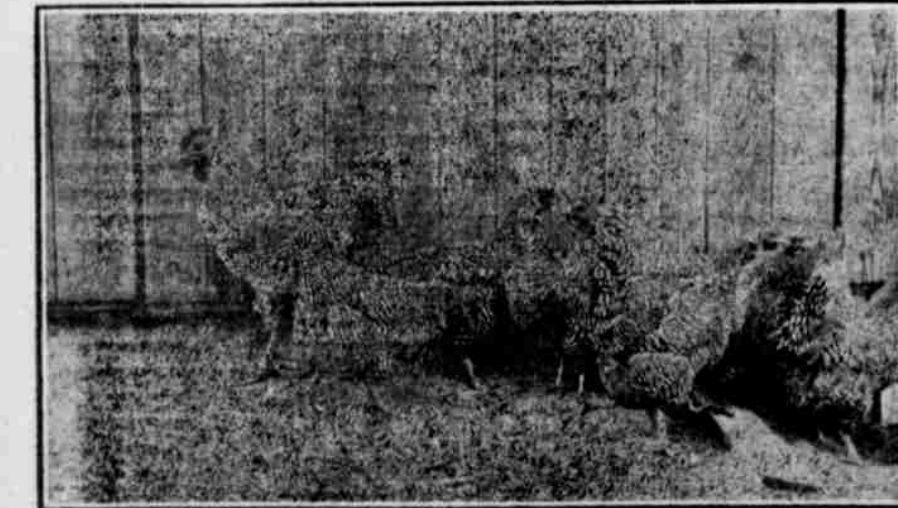
BREEDING.

Offers Chance to Build Up High Standard of Poultry; Virginia County High School Distributes Eggs From Pure Bred Stock; May be Readily Adopted Elsewhere.

(Prepared by the U. S. Department of Agriculture)

Community breeding in poultry offers great opportunities for the improvement of poultry stock, and also for the marketing of poultry and eggs. The Pentula district of California, where white Leghorns are the

predominant breed, approaches the community breeding idea. In certain localities in the east there are extensive duck farms, but no one particular locality seems to confine its breeding operations entirely to one variety. At Middletown, Va., the county agricultural school has undertaken a sort of community breeding of poultry, which promises far-reaching results, and which can be easily adopted and followed out in other communities. The agricultural high school draws from a large area students who are primarily interested in agricul-



Pen of Pure Bred Barred Rocks Owned by Middletown, Va., Poultry Club.

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ture to hatch only eggs from this source. Thus from this single flock there is being built up in the community practically one pure bred strain of poultry.

The care of the poultry is part of the schoolhouse janitor's work, and the poultry is systematically cared for by one attendant rather than under a hit or miss plan, where a number of school children "try their hand" at feeding the fowls.

Two male birds are kept with the 30 hens only during the breeding season and eggs are sold in the open

**FUTURE
WEATHER
FORECAST**

By L.N. PRITCHARD
GRAND RAPIDS, MICHIGAN

Spiders are considered natural barometers and seem to have an instinct for coming atmospheric changes. This is not unnatural, however, since they were created with an eye to business and ability to meet all requirements of the elements. Before the coming of strong winds or heavy rains, spiders will shorten their webs and reinforce them. In fact, every twenty-four hours, changes may be noticed in the spiders' web as he meets the requirements for the day.

Fair and fine weather may be expected when the spider spins long, slender filaments on his web. His greater activity may also be taken as the forerunner of nice weather. If he lies quiet in the center of the web, rain may be expected and also when spiders come more plentifully from out of crevices and holes in the wall.

June 27th to July 3rd.

Storms of heavy rains, electrical storms and tornadoes are to be expected in central sections of the United States as this week begins moving into the eastern coast states by Monday or Tuesday.

Sunday the lake region is expected to have changeable weather with temperatures normal or a little below. Monday will be cloudy and cooler, temperatures ranging cool in lake re-

gion, upper Mississippi and upper Missouri valleys.

During the first part of the week temperatures will rise in western states in advance of the low barometric area expected to appear upon the western coast about Tuesday, the 29th.

This storm will warm and dry the air in Colorado and bordering states about Wednesday, the 30th, but followed by high winds and possibly driving local rains. These conditions will cross Mississippi valley about July 1st and Atlantic coast near to the close of the week.

A change to much cooler will follow in the rear of this storm area with clearing skies. The Arkansas valley and other western sections will have dry and generally fair weather about Saturday, the 3rd of July.

As the week ends western sections of the United States will be feeling the effects of increased heat due to the oncoming disturbance to be detailed in next week's forecast.

Vanillin is the active principle which makes vanilla ice cream so popular. It occurs in the roots of oats and the leaves and roots of a number of plants. It has been found to be poisonous to clover, wheat, cowpeas and other plants.